

(2) Provided with suitable suction and discharge hoses capable of reaching the bilges of each watertight compartment, and discharging overboard.

(c) A second power pump is an acceptable alternative to a hand pump if it is supplied by a source independent of the first power bilge pump.

**§ 119.530 Bilge high level alarms.**

(a) Each vessel must be provided with a visual and audible alarm at the operating station to indicate a high water level in each of the following normally unmanned spaces:

(1) A space with a through-hull fitting below the deepest load waterline, such as a lazarette;

(2) A machinery space bilge, bilge well, shaft alley bilge, or other spaces subject to flooding from sea water piping within the space; and

(3) A space with a non-watertight closure, such as a space with a non-watertight hatch on the main deck.

(b) A visual indicator must be provided at the operating station to indicate when any automatic bilge pump is operating.

[CGD 85–080, 61 FR 922, Jan. 10, 1996; 61 FR 20556, May 7, 1996]

**§ 119.540 Ballast systems.**

Solid and water ballast must comply with the requirements of subpart L of part 116 of this subchapter.

**Subpart F—Steering Systems**

**§ 119.600 General.**

A self-propelled vessel must meet the applicable requirements for main and auxiliary steering apparatus in subchapters F (Marine Engineering) and J (Electrical Engineering) of this chapter.

**Subpart G—Piping Systems**

**§ 119.700 General.**

Materials used in piping systems must meet the requirements of this subpart and be otherwise acceptable to the cognizant OCMI.

**§ 119.710 Piping for vital systems.**

(a) Vital systems are those systems that are vital to a vessel's surviv-

ability and safety. For the purpose of this part the following are vital systems:

(1) Fuel systems;

(2) Fire main;

(3) CO<sub>2</sub> and Halon systems;

(4) Bilge system;

(5) Steering system;

(6) Propulsion system and its necessary auxiliaries and controls;

(7) Ship's service and emergency electrical generation system and its necessary auxiliaries; and

(8) A marine engineering system identified by the cognizant OCMI as being crucial to the survival of the vessel or to the protection of the personnel on board.

(b) For the purpose of this part, a system not identified in paragraph (a) of this section is a non-vital system.

(c) Piping used in a vital system must meet § 56.60 in subchapter F of this chapter, except that § 119.730 of this part replaces § 56.60–20 in subchapter F of this chapter.

**§ 119.715 Piping subject to more than 1,034 kPa (150 psig) in non-vital systems.**

Piping subject to more than 1034 kPa (150 psig) in a non-vital system must be designed, fabricated, and inspected in accordance with the principles of American National Standards Institute (ANSI) B 31.1 "American National Standard Code for Pressure Piping, Power Piping," or other standard specified by the Commandant.

**§ 119.720 Nonmetallic piping materials.**

Nonmetallic piping materials, including nonmetallic flexible hose assemblies, must meet the requirements of § 56.60–25 in subchapter F of this chapter.

**§ 119.730 Nonferrous metallic piping materials.**

(a) Nonferrous metallic piping materials are acceptable for use in the following:

(1) Non-vital systems;

(2) Aluminum fuel piping on an aluminum hulled vessel, if at least Schedule 80;

(3) Aluminum bilge, ballast, and firemain piping on an aluminum hulled vessel;